Fig. 1

## (a) In the absence of ATP

$$AMP + PolyP_n \rightarrow X$$

## (b) In the presence of ATP

AMP + ATP 
$$\stackrel{ADK}{\rightarrow}$$
 2 ADP

2 ADP + PolyP<sub>n</sub>  $\stackrel{PPK}{\rightarrow}$  2 ATP + PolyP<sub>n-2</sub>

2 AMP + 2 ATP  $\stackrel{ADK}{\rightarrow}$  4 ADP

4 ADP + PolyP<sub>n-2</sub>  $\stackrel{PPK}{\rightarrow}$  4 ATP + PolyP<sub>n-4</sub>

ADK: adenylate kinase PPK: polyphosphate kinase

Fig. 2

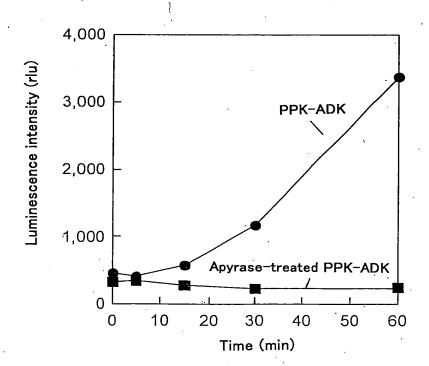


Fig. 3

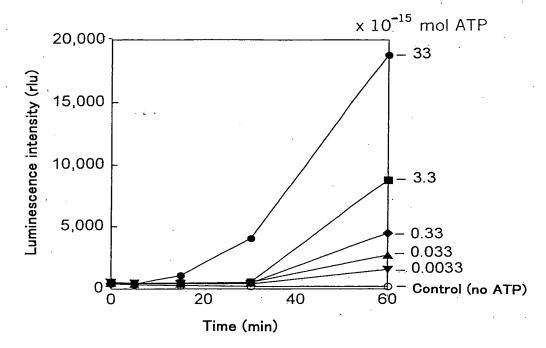


Fig. 4

